Claims

1. A purified polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 22, SEQ ID NO: 23 and SEQ ID NO: 24.

2. The polypeptide of any of claim 1 wherein said polypeptide is labeled, either directly or indirectly with a detectable label.

3. An isolated, purified or synthetic peptide of about 9 to about 15 residues in length that comprises an amino acid sequence identical to a contiguous 9 amino acid sequence of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 22, SEQ ID NO: 23 and SEQ ID NO: 24, with the proviso that the sequence is not SEQ ID NO: 12.

4. The peptide of claim 3, wherein said peptide is 10 to about 15 residues in length that comprises an amino acid sequence identical to a contiguous 10 amino acid sequence of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 22, SEQ ID NO: 23 and SEQ ID NO: 24.

5. An antigenic composition comprising a purified amino acid sequence selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, and bioactive fragments of such sequences; and

a pharmaceutiacally acceptable carrier.

6. The composition of claim 5 wherein the bioactive fragment comprises SEQ ID NO: 12.

7. An isolated, purified or synthetic peptide of about 9 to about 15 residues in length that comprises an amino acid sequence identical to SEQ ID NO: 12.

8. An antibody that specifically binds to a polypeptide selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 22, SEQ ID NO: 23 and SEQ ID NO: 24.

9. An antibody that specifically binds to the amino acid sequence of SEQ ID NO: 12.

10. The antibody of claim 8 or 9 wherein said antibody is a monoclonal antibody.

11. The antibody of claim 10 wherein said antibody is labeled, either directly or indirectly with a detectable label.

12. A composition comprising the antibody of claim 10 and a pharmaceutically acceptable carrier.

13. A nucleic acid sequence comprising a sequence selected from the group consisiting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4 and SEQ ID NO: 5.

14. The nucleic acid sequence of claim 13 wherein said nucleic acid sequence is labeled, either directly or indirectly with a detectable label.

15. A recombinant gene construct, said construct comprising a non-native promoter operably linked to a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4 and SEQ ID NO: 5.

16. A transgenic cell comprising the construct of claim 15.

17. The transgenic cell of claim 16 wherein the cell is a human cell cultured *in vitro*.

18. A process for inducing a cytotoxic T lymphocyte (CTL) *in vitro* that is specific for a melanoma cancer cell, said method comprising contacting a precursor CTL with an immunogen comprising the sequence of SEQ ID NO: 12 under conditions that generate a CTL response to the melanoma cancer cell.

19. A process for inducing a CTL response *in vitro* that is specific for a melanoma cancer cell comprising contacting a precursor CTL with a mammalian cell of claim 17.

20. A process for treating cancer characterized by expression of a peptide selected from the group consisting of SEQ ID NO: 6-11, said process comprising administering CTLs induced by the processes of claims 18 or 19 in an amount sufficient to destroy the tumor cells through direct lysis or to effect the destruction of the tumor cells indirectly through the elaboration of cytokines.

21. The process of claim 20 wherein said cancer is melanoma cancer.

22. A melanoma-specific immunogen comprising a melanoma-specific CTL epitope, wherein at least one of said epitopes is identical to a sequence selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21.

23. A method of detecting cancer, said method comprising the step of screening a biological sample obtained from a patient for elevated levels or inappropriate expression of TAG polypeptides.

24. The method of claim 23 wherein said biological sample is selected from the group consisting of cells, tissue biopsy specimens, whole blood, plasma, serum, sputum, cerebrospinal fluid, pleural fluid, and urine.

25. The method of claim 24 wherein the biological sample comprises somatic tissue, and the somatic tissue is screened for expression of TAG polypeptides.

26. The method of claim 25 wherein the expression of TAG polypeptides is detected using a nucleic acid sequence that binds under high stringency to a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4 and SEQ ID NO: 5.

27. The method of claim 25 wherein the expression of TAG polypeptides is detected using an antibody that binds to a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 22, SEQ ID NO: 23 and SEQ ID NO: 24, with the proviso that the antibody does not bind to SEQ ID NO: 12.

28. A recombinant host cell comprising an exogenous nucleic acid sequence that encodes for a polypeptide comprising an amino acid sequence selected from the group consisiting of SEQ ID NO: 6-11 and 22-24.

29. The host cell of claim 28 wherein the cell is a human cell cultured *in vitro*.

30. The host cell of claim 29 wherein the host cell represents an antigen presenting cell is selected from the group consisting of dendritic cells, macrophages, and B cells.